UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466

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FINAL POLLUTION REPORT
Basin Tailings Site
Basin, Jefferson County, Montana

I. HEADING

Date:	**October 6, 1999**
Site Name:	Basin Tailings
From:	Hays Griswold, OSC
To:	Patty Smith, EPA Headquarters
POLREP No.:	**Final**

II. BACKGROUND

Site No.:	4R
Response Authority:	CERCLA
Action Memorandum:	October 8, 1998
Start Date :	October 26, 1998
Demobilization Date:	November 12, 1998
Completion Date:	**October 6, 1999**

III. SITE INFORMATION

A. Incident Category

Time-Critical, Fund-Lead, Removal Action

B. Site Description

1. Site Location

A mound of metal-contaminated tailings was located on the property of a resident at the end of Valley Street in Basin, Montana and adjacent to Boulder River. The pile of tan medium-gray tailings, estimated at 2,500 cubic yards of material, and a pile of tailings on an immediately adjacent island in the river were the areas

of concern.

2. Site Characteristics

The tailings were located directly adjacent to the Boulder River with no natural or man-made containment to prevent migration of the tailings into the river. Sandy tailings were located in a long strip on the upstream segment and a wider triangular shape on the downstream segment. An adjacent area with apparent brown fine-grained tailings was located next to the river along the downstream segment. Some drainage troughs were observed on the surface of the pile, and some of the material had been tracked onto an adjacent driveway. Additionally there was a pile of tailings on an immediately adjacent island in the river.

3. Description of Threat

The Site contained piles of bare mine tailings located on the property of a resident and on an island in the river near Basin, Montana. A staff member from Montana Department of Environmental Quality (MDEQ) and the Environmental Protection Agency (EPA) Montana Office of Operations (MO) visited the Site in response to a letter from the property owner who was concerned about the danger of children playing on the tailings. After noting the bare tailings adjacent to the Boulder River, signs of play in the tailings by children, and a shallow domestic well onsite, MO, in a letter dated 2/25/98, asked for assistance from the Region VIII EPA Emergency Response Team in assessing the Site for a potential Removal Action.

On October 7, 1997, an EPA On-Scene Coordinator (OSC), a staff member from MO, and team members from EPA's Superfund Technical Assessment and Response Team (START) contractor visited the Site and collected eight soil samples. The analytical results indicate concentrations of up to 1,500 milligrams per kilogram (mg/kg) arsenic, 2,600 mg/kg copper, 580 mg/kg lead, and 940 mg/kg zinc.

The Site includes a residence which houses a family with children. There are also signs that children who live in the area play in the tailings; children's toys

and a wheelbarrow filled with glass were observed on the tan sandy tailings. A horse kept at the property crosses the tailings to drink at the river and dogs were observed on the tailings.

IV. RESPONSE INFORMATION

A. Situation

1. Action description

The activities for the Removal Action are time-critical and consist of Site Assessment and Stabilization, Removal and Disposal, and Site Restoration. On 10/26/98 EPA and its Removal Contractor mobilized to the Site to initiate the following actions:

Site Assessment and Stabilization:

The appropriate Site security was established.

A Sampling QA/QC Plan was developed for additional sampling activities at the Site and undertaken to determine:

a. The presence and extent of the contamination at the Site; and,
b. The waste-stream(s) for disposal.

In the process of excavating and further survey of the contaminated soils on the Site, additional tailings and contaminated materials were found along the upstream area of the banks adjacent to the Boulder River and an additional pile of tailings was found among the vegetation of an island in the Boulder River. Upon initial X-Ray Flourescent (XRF) analysis the concentration of arsenic appears to be similar to the original sampling. Therefore, an Amendment to the Original Action Memorandum was submitted and approved that requested Removal Action at the newly-discovered areas at cleanup levels the same as the Original Action Memorandum (i.e. 80 parts per million - Arsenic).

Removal and Disposal:

a. On October 26, 1998, excavation and stockpiling of the contaminated arsenic soil and tailings pile was begun (Arsenic is the contaminant of concern; and, as determined by EPA toxicologists, the cleanup level is set for 80 parts per million);

b. Approximately 5000 cubic yards of contaminated soil were excavated and disposed, along with the debris, at a State-approved repository, owned by Medicine Bow County in Butte, Montana.

Site Restoration:

a. The excavated areas were backfilled with clean soil and graded to allow natural drainage.

b. The backfilled areas were fertilized, seeded, and mulched.

2. Future Actions

Grading, fertilizing, and reseeding were completed in late fall of 1998; and the results of the revegetation have now been evaluated. Therefore, this Removal Action is now considered to be complete.

V. COST INFORMATION

The budget which was established for this Removal Action was $366,000. Final cost figures are not complete, but it appears that the project costs are well under the established ceiling.